REMARKS

Amendments to the Claims

Independent claims 1 has been amended without prejudice to recite preferred embodiments of applicants invention that are more clearly differentiated from the prior art. Specifically,

- The qualifier "about" was deleted from the lower limit of the concentrations of components ii) –v) to make it clearer that these components must be present in the composition at least at the minimum levels indicated;

- The phrase "as herein defined" was deleted

- The claim has been limited to aerated products which show a high resistance to meltdown and to serum leakage for extended periods of time as determined by having a meltdown initiation time greater than about 120 minutes when measured at 20° C. The meltdown resistance is an important feature of the compositions of the present invention and is discussed on page 7 line 24 to page 8, line 2 and on page 20, line 9-17 in connection with the examples.

Claims 6-19 are hereby canceled without prejudice to further presentation in a divisional application.

New claims 20-22 have been introduced.

Claim 20 specifies that the milk solid is skin milk powder present at a level of 4 to 6.5 w/w%. The claim is supported by the compositions disclosed in Examples 1-13 (see tables 1 and 2 on pages 15, 16 and 18).

Claim 21 specifies that the meltdown initiation time recited in claim 1 is greater than 180 minutes as disclosed on page 7 line 32.

Claim 22 recites one preferred route to achieve compositions that have high meltdown resistance; namely that the composition is made by a process in which the milk solid protein is pasteurized in a premix, said premix comprising a fruit and/or vegetable puree in which the pH of said puree is adjusted to a value above the isoelectric point of the milk protein. This step is disclosed at page 9, lines 27-32 and exemplary products made by this process are disclosed in Examples 1-11.

Claim Rejections – 35 USC § 103

Claims 1-5 were rejected under 35 USC §103(a) as being unpatentable over Jonas (US 4,971,824) in view of the combination of Koss et al (WO 02/094035) and Blake (US 4,224,981). Applicants traverse this rejection.

The Final Rejection mailed June 14, 2007 cited a previous Office Action mailed April 17, 2006. However, in the April 14 rejection Blake was cited only in connection with claim 13 which is a part of a non-elected invention and has now been cancelled without prejudice. Hence Blake will not be discussed further.

Jonas was cited as the primary reference for its disclosure of a frozen natural desert having an overrun between about 18 and 100, a pH of less that 4.5, comprising no added fat and high fiber content. The frozen products contain fruit purees and no non-natural additives.

Jonas is silent regarding emulsifiers. However, the Examiner asserted that it would have been obvious to one of ordinary skill in the art to expect that non-natural additives encompass emulsifiers. Applicants' respectfully point out that lecithin which is a natural ingredient present in egg yolk and soy bean is a widely used emulsifier in foods (see Koss et al p 31, line 28). Thus, "emulsifier-free" is not synonymous with "all-natural".

Jonas does not disclose compositions containing milk solids in combination with fruit purees or other sources of dietary fiber. Jonas in fact dissuades the use of milk solids, stating on column 3, lines 33-41 "The fruit products described herein provide a creamy type frozen dessert without the disadvantageous ingredients of a milk product based food. For example, the dessert of the instant invention has no milk, milk solids, lactose, cholesterol, added sugars or artificial flavors".

Jonas is silent regarding the meltdown resistance of frozen confection.

Jonas is silent regarding the isoelectric point of proteins or any processing steps involving pasteurization in which the pH must be adjusted to a value above the isoelectric point of the protein.

Koss et al relates to a method for preparing nutritional frozen deserts having palatable characteristics and comprising vitamins and minerals (abstract).

The Office relied up Koss et al for its teaching of nutritional frozen deserts containing sweetener, milk solids, "optionally" emulsifiers, and stabilizers, and dietary fibers. Applicants respectfully point out that in the passage cited from Koss et al. by the Examiner (page 9, lines 11-13) the term "optionally" only modifies the word "emulsifiers" and not the word "stabilizer". This interpretation is consistent with the fact that all the exemplary compositions of Koss et al contain a stabilizer but only some contain an emulsifier (lecithin).

Koss is silent regarding the meltdown resistance of frozen confection.

Koss et al is silent regarding the isoelectric point of proteins or any processing steps involving pasteurization in which the pH must be adjusted to a value above the isolectric point of the protein.

The Examiners asserted that it would have been obvious to a person of ordinary skill in the art to have modified Jonas with the teachings of Koss et al in order to increase the nutritional benefits of the frozen natural product. However, applicants submit that this assertion does not mean that the artisan would have been motivated to have combined every aspect taught by Koss et al with Jonas.

Applicants' submit that although a person of ordinary skill in the art may have been motivated to include some of the "nutrition" ingredients disclosed in Koss et al such as vitamins and minerals, the artisan would not have been motivated to incorporate non-fat milk proteins or additional sugar because Jonas expressly teaches that these components are "disadvantageous ingredients" and that one of the advantages of the Jonas compositions is that they no not contain them.

Applicants' further submit that the teachings of Koss et al as they relate to the formulation of frozen desserts are fundamentally incompatible with the teachings of Jonas. Jonas expressly teaches that the composition should not contain stabilizer and vegetable proteins (claim 1) such as from concentrated soy and dissuades the inclusion of additional sugar, milk proteins and milk solids. In contrast, all the exemplary frozen desserts of Koss et al teach a "stabilizer" either alone or in combination with lecithin (a natural emulsifier found in egg yolk) and fructose (an added sugar). Various exemplary formulas disclosed by Koss et al contain soy concentrate, milk proteins, milk solids, and sucrose.

Applicants further submit that even in the event the references were combined, the combination would still not have taught with any specificity the artisan how to obtain a frozen aerated product that had all the ingredients recited in applicants' claim and which also would have exhibited a resistance to meltdown and to serum leakage for extended periods of time as determined by having a meltdown initiation time greater than about 120 minutes when measured at 20° C.

Applicants' have found that the ability of a frozen aerated product to exhibit desirable meltdown resistance depends not only on composition, e.g. level of dietary fiber, but also on the process used to prepare the composition especially when fruit purees and milk proteins are present in the same composition. Thus, this limitation on meltdown resistance is not an inherent property of the composition. For example, applicants have found that the milk protein should be pasteurized in a premix which has a pH adjusted to be above its isoelectric point so as to avoid extensive denaturation of the protein which results in precipitation and instability.

In contrast, the method of preparing the frozen desserts disclosed both by Jonas (column 3, example 1, lines 62-67) and by Konas et al (page 9, lines 11-19) involves mixing all the ingredients together to form a base and then pasteurizing this base. The pasteurization method used by Jonas involves boiling for 3 minutes. The Jonas base has a pH of 3.4 which is far above the isolectric pH of typical milk proteins (e.g., casein has an isoelectric point around 4.6) and would induce denaturation of milk proteins had such proteins been present.

Absent disclosure of meltdown resistance, a test method to measure this property, objective criteria for its attainment, and the process routes to achieve it, the combination of Jonas and Koss et al does not present a *prima facie* case of obviousness.

Claims 20-22 are even more removed from the combination of Jonas and Koss et al.

Regarding claim 20, neither Jonas nor Koss et al discloses the incorporation of skim milk powder at a level between 4 and 6%. Jonas recommends exclusion of skim milk powder while Koss et teaches a composition having 1.8% non-fat dry milk.

Regarding claim 21, neither reference teaches meltdown resistance or meltdown initiation time, let alone a composition having a meltdown initiation time of at least 180 minutes.

Regarding claim 22 which is a product by process claim, nether reference discloses a composition having the components recited in claim 1 that is made by a process in which the milk solid proteins is pasteurized in a premix comprising a fruit

and/or vegetable puree in which the pH of said puree is first adjusted to a value above the isoelectric point of the milk protein. For example, the pH of the Jonas base mixture which is pasteurized at the boiling point is approximately 3.4 while the isolectric point of a typical milk proteins is 4.2-5. Applicants have informed their agent that subjecting a typical milk protein to the pasteurization conditions taught by Jonas would denature and precipitate the protein and lead to an unstable frozen aerated product.

In light of the above amendment and remarks, applicants respectfully request that the 103(a) rejection over Jonas (US 4,971,824) in view of the combination of Koss et al (WO 02/094035) be reconsidered and withdrawn and that the application be allowed to issue.

If a telephone conversation would be of assistance, Applicant's undersigned agent invites the Examiner to telephone at the number provided.

Respectfully submitted,

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